

Statistics Report 09501, Apples, raw, golden delicious, with skin
Report Date: May 22, 2017 01:32 EDT

Nutrient values and weights are for edible portion.

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Proximates													
Water 1 2	g	85.81	--	0.187	84.77	87.52	4.0	85.272	86.339	2	Analytical or derived from analytical	--	08/2012
Energy	kcal	57	--	--	--	--	--	--	--	--	Calculated or imputed	--	08/2012
Energy	kJ	238	--	--	--	--	--	--	--	--	Calculated or imputed	--	08/2012
Protein 1 2	g	0.28	--	0.044	0.17	0.44	3.0	0.146	0.411	2	Analytical or derived from analytical	--	08/2012
Total lipid (fat) 1 2	g	0.15	--	0.017	0.07	0.23	4.0	0.104	0.201	2	Analytical or derived from analytical	--	08/2012
Ash 1 2	g	0.16	--	0.032	0.07	0.28	3.0	0.064	0.259	2	Analytical or derived from analytical	--	08/2012
Carbohydrate, by difference	g	13.60	--	--	--	--	--	--	--	--	Calculated or imputed	--	08/2012
Fiber, total dietary 1 2	g	2.4	--	0.058	1.4	3	3.0	2.216	2.614	2	Analytical or derived from analytical	--	08/2012
Sugars, total 1 2	g	10.04	--	0.143	8.77	11.26	3.0	9.6	10.48	2	Analytical or derived from analytical	--	08/2012

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Sucrose 1 2	g	2.07	--	0.102	0.78	2.95	3.0	1.765	2.37	2	Analytical or derived from analytical	--	08/2012
Glucose (dextrose) 1 2	g	1.87	--	0.057	1.62	2.38	1.0	1.428	2.308	2	Analytical or derived from analytical	--	08/2012
Fructose 1 2	g	6.10	--	0.087	5.61	6.63	3.0	5.835	6.373	2	Analytical or derived from analytical	--	08/2012
Lactose 1 2	g	0.00	--	0.000	0	0	--	--	--	2	Analytical or derived from analytical	--	08/2012
Maltose 1 2	g	0.00	--	0.000	0	0	--	--	--	2	Analytical or derived from analytical	--	08/2012
Galactose 1 2	g	0.00	--	0.000	0	0	--	--	--	2	Analytical or derived from analytical	--	08/2012
Starch 2	g	0.05	--	--	0.05	0.05	--	--	--	1	Analytical or derived from analytical	--	08/2012
Minerals													
Calcium, Ca 1 2 3	mg	6	--	0.181	5	7	1.0	4.059	7.621	3	Analytical or derived from analytical	--	08/2012
Iron, Fe 2 3	mg	0.13	--	0.004	0.1	0.18	1.0	0.082	0.185	2	Analytical or derived from analytical	--	08/2012
Magnesium, Mg 1 2 3	mg	5	--	0.077	4	6	2.0	4.589	5.499	3	Analytical or derived from analytical	--	08/2012

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Phosphorus, P 1 2	mg	10	--	0.395	10	11	2.0	8.224	12.701	2	Analytical or derived from analytical	--	08/2012
Potassium, K 1 2 3	mg	100	--	2.010	88	109	1.0	75.914	124.686	3	Analytical or derived from analytical	--	08/2012
Sodium, Na 3	mg	2	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Zinc, Zn 1 2 3	mg	0.04	--	0.008	0.01	0.07	1.0	-0.045	0.121	3	Analytical or derived from analytical	--	08/2012
Copper, Cu 2 3	mg	0.030	--	0.000	0.03	0.04	1.0	0.026	0.034	2	Analytical or derived from analytical	--	08/2012
Manganese, Mn 1 2 3	mg	0.035	--	0.001	0.03	0.04	1.0	0.029	0.042	3	Analytical or derived from analytical	--	08/2012
Selenium, Se 2	µg	0.0	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Vitamins													
Thiamin 1 2	mg	0.018	--	0.001	0.01	0.03	2.0	0.012	0.024	2	Analytical or derived from analytical	--	08/2012
Riboflavin 1 2	mg	0.026	--	0.002	0.01	0.04	2.0	0.018	0.035	2	Analytical or derived from analytical	--	08/2012
Niacin 2	mg	0.094	--	--	0.09	0.1	1.0	--	--	1	Analytical or derived from analytical	--	08/2012

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Pantothenic acid 1 2	mg	0.074	--	0.005	0.03	0.13	1.0	0.01	0.137	2	Analytical or derived from analytical	--	08/2012
Vitamin B-6 1 2	mg	0.051	--	0.003	0.04	0.06	1.0	0.018	0.083	2	Analytical or derived from analytical	--	08/2012
Folate, total	µg	3	--	--	--	--	--	--	--	--	Calculated or imputed	--	08/2012
Folate, food	µg	3	--	--	--	--	--	--	--	--	Calculated or imputed	--	08/2012
Choline, total	mg	5.1	--	--	--	--	--	--	--	--	Calculated or imputed	--	08/2012
Vitamin A, RAE 1 2	µg	3	--	0.250	2	3	2.0	1.485	3.64	2	Analytical or derived from analytical	--	08/2012
Carotene, beta 1 2	µg	25	--	2.704	17	31	2.0	11.299	38.201	2	Analytical or derived from analytical	--	08/2012
Carotene, alpha 1 2	µg	0	--	0.000	0	0	--	--	--	2	Analytical or derived from analytical	--	08/2012
Cryptoxanthin, beta 1 2	µg	12	--	1.275	10	16	1.0	-1.623	25.623	2	Analytical or derived from analytical	--	08/2012
Vitamin A, IU 1 2	IU	51	--	5.009	38	65	2.0	29.699	72.801	2	Analytical or derived from analytical	--	08/2012
Lycopene 1 2	µg	0	--	0.000	0	0	--	--	--	2	Analytical or derived from analytical	--	08/2012

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Lutein + zeaxanthin 1 2	µg	28	--	2.915	23	34	2.0	11.879	43.121	2	Analytical or derived from analytical	--	08/2012
Vitamin E (alpha-tocopherol)	mg	0.18	--	--	--	--	--	--	--	--	Calculated or imputed	--	08/2012
Vitamin K (phylloquinone) 1 2	µg	1.8	--	0.050	1.6	2.1	1.0	1.165	2.435	2	Analytical or derived from analytical	--	08/2012
Lipids													
Fatty acids, total trans	g	0.000	--	--	--	--	--	--	--	--	Assumed zero	--	06/2015
Amino Acids													
Tryptophan 2	g	0.001	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Threonine 2	g	0.006	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Isoleucine 2	g	0.006	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Leucine 2	g	0.014	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Lysine 2	g	0.013	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Methionine 2	g	0.001	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Cystine 2	g	0.001	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Phenylalanine 2	g	0.007	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Tyrosine 2	g	0.001	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Valine 2	g	0.013	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Arginine 2	g	0.006	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Histidine 2	g	0.005	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Alanine 2	g	0.012	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Aspartic acid 2	g	0.075	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Glutamic acid 2	g	0.026	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012
Glycine 2	g	0.009	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/2012

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Flavonoids													
Anthocyanidins													
Cyanidin 7 8 9	mg	0.00	--	0	0	0	--	--	--	--	--	--	--
Petunidin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Delphinidin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Malvidin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Pelargonidin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Peonidin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Flavan-3-ols													
(+)-Catechin 7 8 9 10	mg	0.6	--	0.06	0	1.6	--	--	--	--	--	--	--
(-)-Epigallocatechin 10	mg	0.3	--	0.2	0	0.71	--	--	--	--	--	--	--
(-)-Epicatechin 7 8 9 10	mg	5.5	--	0.97	1.32	9.2	--	--	--	--	--	--	--
(-)-Epicatechin 3-gallate 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
(-)-Epigallocatechin 3-gallate 10	mg	0.2	--	0.11	0	0.4	--	--	--	--	--	--	--
(+)-Gallocatechin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Flavanones													
Hesperetin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Naringenin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Flavones													
Apigenin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Luteolin 10	mg	0.0	--	--	0	0	--	--	--	--	--	--	--
Flavonols													
Myricetin 10	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Quercetin 7 8 9 10	mg	3.7	--	0.73	1.57	4.65	--	--	--	--	--	--	--
Proanthocyanidin													
Proanthocyanidin dimers 4 5 6	mg	7.4	--	1.64	4.58	10.6	--	--	--	--	--	--	--
Proanthocyanidin trimers 4 5	mg	4.7	--	1.37	2.88	6.4	--	--	--	--	--	--	--
Proanthocyanidin 4-6mers 5	mg	21.8	--	1.21	20.58	23.17	--	--	--	--	--	--	--
Proanthocyanidin 7-10mers 5	mg	18.8	--	1.01	17.55	19.98	--	--	--	--	--	--	--
Proanthocyanidin polymers (>10mers) 5	mg	26.5	--	2.77	23.17	29.78	--	--	--	--	--	--	--

Sources of Data

¹Nutrient Data Laboratory, ARS, USDA National Food and Nutrient Analysis Program Wave 5j, 2001 Beltsville MD
²Nutrient Data Laboratory, ARS, USDA National Food and Nutrient Analysis Program Wave 5b, 2000 Beltsville MD
³N.J. Miller-Ihli Atomic absorption and atomic emission spectrometry for the determination of the trace element content of selected fruits consumed in the United States, 1996 Journal of Food Composition and Analysis 9 4 pp.301-311
⁴de Pascual-Teresa, S., Santos-Buelga, C., and Rivas-Gonzalo, J.C. Quantitative analysis of flavan-3-ols in Spanish foodstuffs and beverages, 2000 J. Agric. Food Chem. 48 pp.5331-5337
⁵Gu, L., Kelm, M.A., Hammerstone, J.F., Beecher, G., Holden, J., Haytowitz, D., Gebhardt, S., and Prior, R.L. Concentrations of proanthocyanidins in common foods and estimations of normal consumption, 2004 J. Nutr. 134 pp.613-617
⁶Lee, K.W., Kim, Y.J., Kim, D-O., Lee, H.J., and lee C.Y. Major phenolics in apple and their contribution to the total antioxidant capacity, 2003 J. Agric. Food Chem. 57 pp.6516-6520
⁷Arabbi, P. R., Genovese, M. I., and Lajolo, F. M. Flavonoids in vegetable foods commonly consumed in Brazil and estimated ingestion by the Brazilian population., 2004 J. Agric. Food Chem. 52 5 pp.1124-1131

⁸Valavanidis, A., Vlachogianni, T., Psomas, A., Zovoili, A., and Statis, V. **Polyphenolic profile and antioxidant activity of five apple cultivars grown under organic and conventional agricultural practices.**, 2009 Int. J. Food Sci. Technol. 144 pp.1167-1175

⁹Vrhovsek, U., Rigo, A., Tonon, D., and Mattivi, F. **Quantitation of polyphenols in different apple varieties.**, 2004 J. Agric. Food Chem. 52 pp.6532-6538

¹⁰Harnly, J. M., Doherty, R., Beecher, G. R., Holden, J. M., Haytowitz, D. B., and Bhagwat, S., and Gebhardt S. **Flavonoid content of U.S. fruits, vegetables, and nuts**, 2006 J. Agric. Food Chem. 54 pp.9966-9977